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| 10/092,987      | 03/07/2002  | Jeremy Alan Arnold   | ROC920010332US1     | 8551             |

7590 07/14/2005  
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EXAMINER

TRUONG, CAM Y T

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2162

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/092,987

Applicant(s)

ARNOLD ET AL.

Examiner

Cam Y T. Truong

Art Unit

2162

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. The applicant has amended claims 1, 12 and 18 in the amendment filed on 6/23/2005. Claims 1-23 are pending in this Office Action.

Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-8, 10-23 are rejected under 35 U.S.C. 103(a) as being unpatentable Bodamer et al (or hereinafter "Bodamer") (US 6236997) in view of Brown et al (or hereinafter "Brown") (US 2003/0093408).

As to claim 1, Bodamer teaches the claimed limitations:

"providing an integrated development environment configured to recommend optimizations for source code" as the appropriate module 210 generating the request performs a substitution to converts the SQL statement from select \*from allusers@FDS to select from (select join A, B)@FDS, which is then passed to the FDS database. The above information indicates that the system has provided an integrated development environment configured to recommend optimizations for a source code corresponding to

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the SQL statement from select \*from allusers@FDS to substitute a new SQL statement (col. 17, lines 45-55);

"receiving a selected fragment of source code, wherein the source code fragment includes a source code statement that references a results of a structured query language statement (SQL)" as the appropriate module 210 generating the request performs a substitution to converts the SQL statement from select \*from allusers@FDS to select from (select join A, B)@FDS, which is then passed to the FDS database. The above information indicates that the appropriate module 210 has received a source code including the SQL statement from select \* from allusers@FDS ; thus, the module 210 can convert converts the SQL statement from select \*from allusers@FDS to select from (select join A, B)@FDS (col. 17, lines 45-55);

"retrieving the structured query language (SQL) statement corresponding to the source code statement" as performing a substitution to converts the SQL statement from the SQL statement from select \*from allusers@FDS to select from (select join A, B)@FDS, which is then passed to the FDS database. The above information shows that the statement select from (select join A, B)@FDS is retrieved for substitution (col. 17, lines 45-55);

"with a recommendation optimizing the retrieved SQL statement, relative to the source code statement" as performing a substitution to converts the SQL statement from the SQL statement from select \*from allusers@FDS to select from (select join A, B)@FDS, which is then passed to the FDS database. The above information shows that the statement select from (select join A, B)@FDS, which is retrieved for

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substitution, is related to the statement select from (select join A, B)@FDS, (col. 17, lines 45-55).

Bodamer does not explicitly teach the claimed limitation "presenting a user interacting with the intergraded development environment". Brown teaches displaying SQL statements to allow a user select them (page 13, col. Left, lines 10-20; col. Right, lines 18-25).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Brown's teaching of displaying SQL statements to allow a user select them to Bodamer's system in order to allow a user can see the structure of a SQL statement to deciding further selection and further to allow a user to create, manipulate, and query a database and to allow a user to alter the queries submitted to dynamically modify or enter SQL statements and quickly see results.

As to claims 2, 13 and 20, Bodamer teaches the claimed limitation "wherein the recommendation comprises one of a recommended SQL statement and a textual spoken language recommendation" as (col. 17, lines 45-55)

As to claims 3 and 14, Bodamer and Brown disclose the claimed limitation subject matter in claims 1 and 12, Brown further teaches the claimed limitation "displaying the recommendation". Brown teaches displaying SQL statements to allow a user select them (page 13, col. Left, lines 10-20; col. Right, lines 18-25).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Brown's teaching of displaying SQL statements to allow a user select them to Bodamer's system in order to allow a user can see the structure of a SQL statement to deciding further selection.

As to claims 4, 15 and 21 Bodamer and Brown disclose the claimed limitation subject matter in claims 1 and 12, Brown further teaches the claimed limitation "displaying the corresponding SQL statement and the recommended SQL statement". Brown teaches displaying SQL statements to allow a user select them (page 13, col. Left, lines 10-20; col. Right, lines 18-25).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Brown's teaching of displaying SQL statements to allow a user select them to Bodamer's system in order to allow a user can see the structure of a SQL statement to deciding further selection.

As to claims 5, 16 and 22, Bodamer teaches the claimed limitation "prior to retrieving the corresponding SQL statement, determining whether the code portion can be modified to be processed more efficiently by substituting the corresponding SQL statement with the recommended SQL statement" as the appropriate module 210 generating the request performs a substitution to convert the SQL statement from select \* from allusers@FDS to select \* from (select \*Join A, B)@FDS, which is then passed to the FDS database. The above information indicates the system determines the

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appropriate module 210 can be modified to be processed more efficiently by substituting the SQL statement from select \* from allusers@FDS to select \* from (select \*Join A, B)@FDS, which is then passed to the FDS database (col. 17, lines 45-55).

As to claim 6, Bodamer teaches the claimed limitation "wherein the recommended SQL statement performs at least one function performed by the code portion" as (col. 17, lines 45-55).

As to claim 7, Bodamer teaches the claimed limitation "prior to generating the recommended SQL statement, retrieving a database type for providing a proper syntax for the recommended SQL statement" as (col. 18, lines 20-60; col. 17, lines 45-55).

As to claims 8, 17, and 23, Bodamer teaches the claimed limitation "wherein the code portion is configured to retrieve independent fields from a database" as (col. 18, lines 20-60; col. 17, lines 45-55).

As to claim 10, Bodamer teaches the claimed limitation "wherein retrieving the corresponding SQL statement comprises retrieving the corresponding SQL statement from a prior execution of the code portion" as (col. 17, lines 45-55).

As to claim 11, Bodamer teaches the claimed limitation "retrieving the corresponding SQL statement from a repository of predefined SQL statements" as (col. 17, lines 45-55).

As to claim 12, Bodamer teaches a computer-readable medium containing a program which executed by a processor, performs an operation for providing programming assistance for an integrated development environment (fig. 1, col. 17, lines 45-55), the operation comprising:

"receiving a selected fragment of source code, wherein the source code fragment includes a source code statement that references a results of a structured query language statement (SQL)" as the appropriate module 210 generating the request performs a substitution to converts the SQL statement from select \*from allusers@FDS to select from (select join A, B)@FDS, which is then passed to the FDS database. The above information indicates that the appropriate module 210 has received a source code including the SQL statement from select \* from allusers@FDS ; thus, the module 210 can convert converts the SQL statement from select \*from allusers@FDS to select from (select join A, B)@FDS (col. 17, lines 45-55);

"retrieving the structured query language (SQL) statement corresponding to the source code statement" as performing a substitution to converts the SQL statement from the SQL statement from select \*from allusers@FDS to select from (select join A, B)@FDS, which is then passed to the FDS database. The above information shows



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that the statement select from (select join A, B)@FDS is retrieved for substitution (col. 17, lines 45-55);

“with a recommendation optimizing the retrieved SQL statement, relative to the source code statement” as performing a substitution to converts the SQL statement from the SQL statement from select \*from allusers@FDS to select from (select join A, B)@FDS, which is then passed to the FDS database. The above information shows that the statement select from (select join A, B)@FDS, which is retrieved for substitution, is related to the statement select from (select join A, B)@FDS, (col. 17, lines 45-55).

Bodamer does not explicitly teach the claimed limitation “presenting a user interacting with the intergraded development environment”. Brown teaches displaying SQL statements to allow a user select them (page 13, col. Left, lines 10-20; col. Right, lines 18-25).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Brown’s teaching of displaying SQL statements to allow a user select them to Bodamer’s system in order to allow a user can see the structure of a SQL statement to deciding further selection and further to allow a user to create, manipulate, and query a database and to allow a user to alter the queries submitted to dynamically modify or enter SQL statements and quickly see results.

As to claim 18, Bodamer teaches the claimed limitations:

“a memory containing a programming assistance program for an integrated development environment” as (fig. 1, col. 17, lines 45-55);

“and a processor which, when executing the programming assistance program, performs an operation comprising receiving a selected fragment of source code, wherein the source code fragment includes a source code statement that references a results of a structured query language statement (SQL)” as the appropriate module 210 generating the request performs a substitution to converts the SQL statement from select \*from allusers@FDS to select from (select join A, B)@FDS, which is then passed to the FDS database. The above information indicates that the appropriate module 210 has received a source code including the SQL statement from select \* from allusers@FDS ; thus, the module 210 can convert converts the SQL statement from select \*from allusers@FDS to select from (select join A, B)@FDS (col. 17, lines 45-55);

“retrieving the structured query language (SQL) statement corresponding to the source code statement” as performing a substitution to converts the SQL statement from the SQL statement from select \*from allusers@FDS to select from (select join A, B)@FDS, which is then passed to the FDS database. The above information shows that the statement select from (select join A, B)@FDS is retrieved for substitution (col. 17, lines 45-55);

“with a recommendation optimizing the retrieved SQL statement, relative to the source code statement” as performing a substitution to converts the SQL statement from the SQL statement from select \*from allusers@FDS to select from (select join A, B)@FDS, which is then passed to the FDS database. The above information shows

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that the statement select from (select join A, B)@FDS, which is retrieved for substitution, is related to the statement select from (select join A, B)@FDS, (col. 17, lines 45-55).

Bodamer does not explicitly teach the claimed limitation "presenting a user interacting with the intergraded development environment". Brown teaches displaying SQL statements to allow a user select them (page 13, col. Left, lines 10-20; col. Right, lines 18-25).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Brown's teaching of displaying SQL statements to allow a user select them to Bodamer's system in order to allow a user can see the structure of a SQL statement to deciding further selection and further to allow a user to create, manipulate, and query a database and to allow a user to alter the queries submitted to dynamically modify or enter SQL statements and quickly see results.

As to claim 19, Bodamer and Brown disclose the claimed limitation subject matter in claim 1, Brown further teaches the claimed limitation "a display device and wherein the operation further comprises displaying the recommendation on the display device" as displaying SQL statements to allow a user select them (page 13, col. Left, lines 10-20; col. Right, lines 18-25).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Brown's teaching of displaying SQL statements to

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allow a user select them to Bodamer's system in order to allow a user can see the structure of a SQL statement to deciding further selection.

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable Bodamer et al (or hereinafter "Bodamer") (US 6236997) in view of Brown et al (or hereinafter "Brown") (US 2003/0093408) and further in view of Helgeson.

As to claim 9, Bodamer and Brown disclose the claimed limitation subject matter in claim 1, except the claimed limitation "wherein the code portion is in Java". Helgeson teaches codes in Java (col. 28, lines 20-25).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Helgeson's teaching of codes in Java to Bodamer and Brown's system in order to handle application type objects which can be further manipulated by the application.

5. Claims 1-8, 10-23 are rejected under 35 U.S.C. 103(a) as being unpatentable Jou et al (or hereinafter "Jou") (US 5822750) in view of Brown et al (or hereinafter "Brown") (US 2003/0093408).

As to claim 1, Jou teaches the claimed limitations:

"providing an integrated development environment configured to recommend optimizations for source code" as (fig. 7, col. 12, lines 45-65);

"receiving a selected fragment of source code, wherein the source code fragment includes a source code statement that references a results of a structured query language statement (SQL)" as (col. 13, lines 15-50);

"retrieving the structured query language (SQL) statement corresponding to the source code statement" as (col. 12, lines 5-30; col. 13, lines 15-50);

"with a recommendation optimizing the retrieved SQL statement, relative to the source code statement" as (col. 13, lines 15-65; col. 14, lines 1-25).

Jou does not explicitly teach the claimed limitation "presenting a user interacting with the intergraded development environment". Brown teaches displaying SQL statements to allow a user select them (page 13, col. Left, lines 10-20; col. Right, lines 18-25).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Brown's teaching of displaying SQL statements to allow a user select them to Jou's system in order to allow a user can see the structure of a SQL statement to deciding further selection and further to allow a user to create, manipulate, and query a database and to allow a user to alter the queries submitted to dynamically modify or enter SQL statements and quickly see results.

As to claims 2, 13 and 20, Jou teaches the claimed limitation "wherein the recommendation comprises one of a recommended SQL statement and a textual spoken language recommendation" as (col. 13, lines 15-65).

As to claims 3 and 14, Jou and Brown disclose the claimed limitation subject matter in claims 1 and 12, Brown further teaches the claimed limitation "displaying the recommendation". Brown teaches displaying SQL statements to allow a user select them (page 13, col. Left, lines 10-20; col. Right, lines 18-25).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Brown's teaching of displaying SQL statements to allow a user select them to Bodamer's system in order to allow a user can see the structure of a SQL statement to deciding further selection.

As to claims 4, 15 and 21 Jou and Brown disclose the claimed limitation subject matter in claims 1 and 12, Brown further teaches the claimed limitation "displaying the corresponding SQL statement and the recommended SQL statement". Brown teaches displaying SQL statements to allow a user select them (page 13, col. Left, lines 10-20; col. Right, lines 18-25).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Brown's teaching of displaying SQL statements to allow a user select them to Jou's system in order to allow a user can see the structure of a SQL statement to deciding further selection.

As to claims 5, 16 and 22, Jou teaches the claimed limitation "prior to retrieving the corresponding SQL statement, determining whether the code portion can be modified to be processed more efficiently by substituting the corresponding SQL

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statement with the recommended SQL statement” as (col.13, lines 15-65; col. 12, lines 45-65).

As to claim 6, Jou teaches the claimed limitation “wherein the recommended SQL statement performs at least one function performed by the code portion” as (col. 12, lines 45-60).

As to claim 7, Jou teaches the claimed limitation “prior to generating the recommended SQL statement, retrieving a database type for providing a proper syntax for the recommended SQL statement” as (col. 12, lines 5-45).

As to claims 8, 17, and 23, Jou teaches the claimed limitation “wherein the code portion is configured to retrieve independent fields from a database” as (col. 15, lines 30-60).

As to claim 10, Jou teaches the claimed limitation “wherein retrieving the corresponding SQL statement comprises retrieving the corresponding SQL statement from a prior execution of the code portion” as (col. 15, lines 30-60).

As to claim 11, Jou teaches the claimed limitation “retrieving the corresponding SQL statement from a repository of predefined SQL statements” as (col. 12, lines 5-15).

As to claim 12, Jou teaches a computer-readable medium containing a program which executed by a processor, performs an operation for providing programming assistance for an integrated development environment (col. 11, lines 15-35; col. 12, lines 15-65), the operation comprising:

“receiving a selected fragment of source code, wherein the source code fragment includes a source code statement that references a results of a structured query language statement (SQL)” as (col. 12, lines 45-65);

“retrieving the structured query language (SQL) statement corresponding to the source code statement” as (col. 12, lines 5-15);

“with a recommendation optimizing the retrieved SQL statement, relative to the source code statement” as (col. 13, lines 15-65).

Jou does not explicitly teach the claimed limitation “presenting a user interacting with the intergraded development environment”. Brown teaches displaying SQL statements to allow a user select them (page 13, col. Left, lines 10-20; col. Right, lines 18-25).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Brown’s teaching of displaying SQL statements to allow a user select them to Jou’s system in order to allow a user can see the structure of a SQL statement to deciding further selection and further to allow a user to create, manipulate, and query a database and to allow a user to alter the queries submitted to dynamically modify or enter SQL statements and quickly see results.



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As to claim 18, Jou teaches the claimed limitations:

“a memory containing a programming assistance program for an integrated development environment” as (col. 11, lines 15-35; col. 12, lines 15-65) “and a processor which, when executing the programming assistance program, performs an operation comprising receiving a selected fragment of source code, wherein the source code fragment includes a source code statement that references a results of a structured query language statement (SQL)” (col. 12, lines 45-65);

“retrieving the structured query language (SQL) statement corresponding to the source code statement” as (col. 12, lines 5-15);

“with a recommendation optimizing the retrieved SQL statement, relative to the source code statement” as (col. 13, lines 15-65).

Jou does not explicitly teach the claimed limitation “presenting a user interacting with the intergraded development environment”. Brown teaches displaying SQL statements to allow a user select them (page 13, col. Left, lines 10-20; col. Right, lines 18-25).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Brown’s teaching of displaying SQL statements to allow a user select them to Jou’s system in order to allow a user can see the structure of a SQL statement to deciding further selection and further to allow a user to create, manipulate, and query a database and to allow a user to alter the queries submitted to dynamically modify or enter SQL statements and quickly see results.

As to claim 19, Jou and Brown disclose the claimed limitation subject matter in claim 1, Brown further teaches the claimed limitation "a display device and wherein the operation further comprises displaying the recommendation on the display device" as displaying SQL statements to allow a user select them (page 13, col. Left, lines 10-20; col. Right, lines 18-25).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Brown's teaching of displaying SQL statements to allow a user select them to Jou's system in order to allow a user can see the structure of a SQL statement to deciding further selection.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable Jou in view of Brown et al (or hereinafter "Brown") (US 2003/0093408) and further in view of Helgeson.

As to claim 9, Jou and Brown disclose the claimed limitation subject matter in claim 1, except the claimed limitation "wherein the code portion is in Java". Helgeson teaches codes in Java (col. 28, lines 20-25).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Helgeson's teaching of codes in Java to Bodamer and Brown's system in order to handle application type objects which can be further manipulated by the application.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Banning et al (US 5421008).


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### **Contact Information**

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cam Y T Truong whose telephone number is (571) 272-4042. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Cam-Y Truong  
Patent Examiner  
Art Unit 2162  
7/8/2005